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Agenda item 10 (c)

NATURAL DISASTER REDUCTION: EFFECTS OF DISASTERS ON MODERN SOCIETIES

Report of Technical Committee C

1. At its 1st plenary meeting, on 23 May 1994, the Conference approved the organization of its work as set out in document A/CONF.172/3 and decided to allocate agenda item 10 (Natural disaster reduction) to the Technical Committees. Technical Committee C was organized by the United Nations Centre for Regional Development and considered agenda item 10 (c) entitled "Effects of disasters on modern societies" on 24 May.

2. Technical Committee C had before it documents A/CONF.172/11 and Add.1-8, which included the programme of the technical session and summaries of the presentations.

3. The Committee had the following officers: Chairman, Clem Littleton (Australia); Moderator, Dr. Atsushi Takeda (National Research Institute for Earth Science and Disaster Prevention, Japan); Rapporteur, Dr. Tsuneo Katayama (International Association of Earthquake Engineering, Japan); Technical Secretary, Mr. James Goater (United Nations Centre for Regional Development, Japan).

4. The following speakers made presentations: First part: (a) Mr. Shinjiro Mizutani of Nagoya University spoke on "Disaster management in metropolitan areas"; (b) Mr. Mohan Munasinghe, Chief,

Environmental Policy Division, World Bank, spoke on "Urban environmental degradation and vulnerability to disasters"; (c) Mr. Philippe Masure, International Association of Engineering Geology, spoke on "Risk management and preventive planning in mega-cities: scientific approach for action"; (d) Mr. Yoshikazu Kitagawa, Director, International Institute of Seismology and Earthquake Engineering, spoke on "Coordination and integration of international projects on risk assessment in mega-cities"; (e) Mr. Ibrahim Attwa, Vice-Governor, Cairo Governorate (Commentator); and (f) Mr. Xu Jilin, Chief Engineer of Beijing Municipal Administrative Commission (Commentator). Second part: (a) Mr. Stuart Mustow, President, Institution of Civil Engineers/World Federation of Engineering Organizations, spoke on "Policies for natural disaster reduction in modern societies"; (b) Mr. Niek Rengers, International Astronautical Federation/International Institute for Aerospace Survey and Earth Sciences, spoke on "The application of satellite remote sensing for natural disaster reduction in developing countries"; (c) Mr. Eugene Staffa, Manager, International Mobile Satellite Organization (INMARSAT), spoke on "The use of mobile satellite communications in natural disaster preparedness and emergency response"; (d) Mr. Takashi Onoda, Chairman of the Marine and Fire Insurance Association of Japan, spoke on "The role of non-life-insurance in disaster management systems"; (e) Mr. M. Hanif, Mayor, Dhaka City Corporation (Commentator); and (f) Mr. Bernardo Grau, Director, Office of Disaster Prevention and Emergency Planning, Bogotá (Commentator).

5. For the purpose of this session, the concept of "modern society" is understood to vary according to different contexts and can include mega-cities, metropolitan regions, and even small or medium-sized cities in developed or developing nations. Here the twenty-first century populations will further concentrate, thereby increasing their vulnerability to natural disasters. The session recognized that natural disasters lead to extremely complex emergencies in which population growth, environmental degradation, and socio-political upheaval aggravate the effects of natural disasters and result in greatly increased damage. Urbanized areas are extremely prone due to their concentration of population, resources, and activities, as well as land-use patterns which greatly increase vulnerability. Particularly in developing countries, the urban poor in fragile or high-risk areas should receive increased attention in development planning.

6. The Committee made the following recommendations:

(a) Recommendation 1: Risk assessment has to be incorporated into planning with an emphasis on sustainable development. Developing countries need to be assisted in their efforts to carry out risk assessment utilizing appropriate technology. Megacities need special attention taking into account the built-up areas and the urban fringe where future unplanned development may cause major disasters. Risk assessment should also include an evaluation of (a) the geo-ecological capacity of cities and their surroundings and (b) the differential vulnerability of various urban socio-economic groups to disasters, with an emphasis on the urban poor.

(b) Recommendation 2: The results of applied risk assessment to specific urban areas and regions must be used within the planning and educational processes. They should be applied to heighten the awareness of various sectors

of society: firstly, politicians and decision makers, who should exercise political will manifested through disaster mitigation and preparedness measures; and secondly, communities, which should participate in drafting and implementing disaster plans with enhanced knowledge and information, as well as the capability to sustain necessary non-structural measures.

(c) Recommendation 3: International cooperation in risk assessment and disaster mitigation needs to be enhanced through: (a) establishment of a global institution for technology transfer in the fields of risk assessment and disaster mitigation; (b) establishment of global or regional data banks on disasters and implementation of ways to ensure the exchange of disaster information; (c) establishment of catastrophic loss reserve systems in order to stabilize reinsurance markets in case of devastating natural disasters; and (d) removal of all barriers to free movement of mobile satellite communication devices.

(d) Recommendation 4: Disaster mitigation issues should be prioritized according to their relative importance and urgency. Based on this, recommended programmes and project proposals should be implemented. Initially, emphasis should be on good illustrative case studies on practical and effective disaster mitigation in high-risk disaster-prone developing countries. Case studies should be selected recognizing that prevention is more important than response.